CHAPTER 6: ANALYZING & INTERPRETING THE DATA

A correct, complete analysis of data and interpretation of the results requires the active involvement of people who understand the program and the community. The following Native Hawaiian story illustrates how misinterpretation can occur when community perspectives are not understood.

A NATIVE HAWAIIAN PERSPECTIVE ABOUT LABELS

"As a Native Hawaiian, the labels that have been put on us are 'lazy, not interested in our health, slow, all of the above,' [and these labels] have been put on many other minorities. When they did a survey on Molokai ... they asked the community to identify what they felt the community's strengths were: one of the things on the list was "slow-paced." They saw that as a definite strength..."

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It is critical that this stage of the evaluation process uses the data to address the questions posed by the stakeholders. The analytic methods used need to be clearly described along with any limitations that might cause a misinterpretation of the results.

Statistical analyses are usually done on a computer by someone trained and experienced in data analysis. You may have such persons on your staff, but if not, technical support may be available from your health department, university, or an independent consultant. If you decide to have the analysis done by others, you will still need to specify the level of involvement that you expect to have; and, to what degree you want your staff to be involved and (ideally) trained as data analyses proceed.

Analyze The Data

Data analysis is the process by which you convert the "raw data" (the measurements, survey responses, interview and focus group recordings, pictures), into summary results that attempt to answer the evaluation questions. The process used for the analysis needs to be structured to assure as much as possible that the conclusions reflect an objective assessment of the data. The goals of data analysis and interpretation are:

- To determine if program indicators are changing as anticipated;
- To determine if program objectives are being met;
- To determine if the rate of progress is sufficient to meet long-term goals within the allotted time;
- To inform stakeholders of the degree of success of the program;

- To provide recommendations for improving program operations; and,
- To determine if your program is using its resources effectively and efficiently.

Chapter 8 lists many books, articles, and websites that can walk you through the specifics of how to analyze your data. Remember, you will not only want to analyze your program's data, but also to interpret it in clear and understandable language.

Establishing Your Data "Standards Of Success"

When you developed the indicators to be used in the evaluation process, you considered the stakeholders' interests, the indicators of success that you would use, and how you planned to measure each indicator. Those considerations formed the base from which you will now be able to determine if your program is a success. In the analysis phase of the evaluation process, you will compare each indicator measurement that you have collected with a "standard of success". To keep the analysis as objective as possible, these standards should be agreed upon prior to the analysis – they represent the objectives set to be accomplished during the period since either the last evaluation, or, if this is your first evaluation, since the program began.

For example, if the indicator under consideration is the "number of clients enrolled in the program in 3 month"; and your objective was "to enroll 100 new clients per month", then total program success would be "to have achieved at least 300 new client enrollments during the past 3 months". The standards of success are established for each indicator along with the nature of measurement used for that indicator. Table 1 used the above example to demonstrate this.

Table 1. Variations In "Standards Of Success" According To Level Of Data Measurement.

LEVEL OF MEASUREMENT	MEASUREMENT	STANDARDS FOR SUCCESS
Nominal	Objective met: "Yes" (300+) or "No" (<300).	"Yes" = success.
Ordinal	<135 136-165 166-195 196-225 226-255 256-285 286-315 316-345 346-375 376+.	45% or less 45.3-55% 55.3-65% 65.3-75%　　Estimated 75.3-85%　　% of goal 85.3-95%　　　met. 95.3-105% 105.3-115% 115.3-125% Over 125%.
Interval	Number of new clients enrolled.	$\dfrac{\text{Actual \#}}{300} \times 100 =$ Percent of objective met.

Some standards may require more support from an independent evaluator but may be worth the investment because they can produce stronger evidence of your program's successes. Your story is told most effectively as a tailored analysis that includes interpretation of the qualitative insights gained from your clients and other stakeholders to complement and "explain" the quantitative findings. Table 2 gives examples of several commonly used community-determined success standards.

Table 2. Examples Of Community-determined "Standards Of Success".

Documented Progress -- "Before" and "After"	Compares your program's performance to where you started from, or (if this is not the first evaluation) to where you were at the time of the last evaluation to see how much progress has been made. Before ("baseline") and after information must measure the same indicators. The comparison addresses both how fully the program is now implemented/improved and how the indicator measurements have improved.
Program Objectives	Compare your program's accomplishments to what it set out to accomplish – staged program implementation objectives. This comparison relies on your having developed solid and phased objectives (realistic, allowing for the stage of the program as it evolves, somewhat ambitious, and comprehensive). It may be helpful to review similar programs to see where you are at in comparison. Remember, you are "telling your own story", don't drift away from your aims with too much comparison to other's programs.
Toughness/Difficulty of the Job	Often programs work under difficult circumstances that may not be appreciated by others. For example, if you work with "hard-to-reach" clients, your accomplishments should be evaluated in this context. This "toughness" or "difficulty" factor needs to be allowed for when establishing your "success standards" (prior to analysis).
Our Community's Way	If your community has its own traditional method for judging program success, try to accommodate that method within your evaluation analysis. For example, it may entail taking the stories you have collected about your program to a spiritual guide who serves as the liaison with the ancestors to learn their views regarding the program. It is important to value and respect such cultural ways while recognizing that they may need to be supported by more standard evaluation methods for those of your stakeholders who are not familiar with the cultural traditions.

Once you've settled on your success standards for each indicator, you will need to consider how to analyze your data (see Table 3). There are many resources on the specifics analytic options, but here are some common issues to consider.

- Quantitative data is usually the result of counts or measurements. If you had your participants fill out a survey, you can report the percentage who chose each answer by tallying how many chose each possible response to a multiple choice question,. This produces a "proportionate frequency distribution" describing the percentage of respondents who chose each answer. This can be graphed and easily shared with others. During subsequent evaluations the "proportionate frequency distribution" can be compared with earlier distributions and the changes that have occurred (if any) attributed to the "success" of the program.

- If you craft questions that provide a range of non-overlapping responses to issues you feel can reflect the changes your program is trying to make in client knowledge, behavior, or attitudes, then you can create a gauge for measuring those changes over time.

- If the survey contains multiple answers and clients are asked to choose all of the correct answers, this will allow you to describe what percentage chose either correct or incorrect responses. If this same survey is given before and after a health education class (pre- and post-test), you could use the changes in the percentage with correct answers as the gauge for measuring improvement in knowledge attributable to the class. And, if this same survey is given to the same clients six months later, you could determine the percentage who retained that knowledge over that time period.

- If your survey asks whether or not clients have engaged in a variety of health-related behaviors in the past week, then you would be able to describe the percentage of clients who reported having engaged in each behavior during that period. The behaviors might be smoking, exercise, binge drinking, use of a condom, visit to a doctor's office, or any other behavior relevant to your program's interests. Again, the proportionate frequency distribution would allow you to summarize the responses of those surveyed so they could be described and compared with earlier or future survey results to determine changes over time.

Table 3. Examples Of Types Of Quantitative Data Analyses.

ANALYSIS TYPE	DESCRIPTION	EXAMPLE
Proportionate Frequency Distributions: Describes how often people choose each answer. Uses only one variable.	Shows the percentage of persons choosing each answer option for each question. The percentage is calculated by dividing the number of persons choosing that answer option by the total number who answered the question, then multiplying the result by 100.	Of 50 clients who answered the survey question, "was the class: a) very helpful, b) somewhat helpful, c) a little helpful, or d) not helpful?": 20 persons (40%) answered "a"; 15 persons (30%) answered "b"; 5 persons (10%) answered "c"; and, 10 persons (20%) chose "d".

ANALYSIS TYPE	DESCRIPTION	EXAMPLE
Measures of Central Tendency: (Used when answers are whole numbers, such as age, number of children, number of visits). Uses only one variable.	**Mean:** Add all the answers together, then divide this sum by the number of answers -- Also termed the "average". In the example at the right: [0x21] + [1x14] + [2x9] + [3x5] + [4x1] = 51 divided by number of respondents (50) = 1.04. **Median:** The middle-most answer in a ranked listing of answer options -- half the responses below, half above. **Mode:** The answer given most. **Range:** The lowest & highest answer.	Of 50 teen program participants, the number of children they reported giving birth to: Number of Number of Teens Children Giving This Answer 0 21 1 14 2 9 3 5 4 1 **Mean** = 1.04 children per teen. **Median** = 1 child. **Mode** = 0 child. **Range:** 0 – 4 children.

Cross-Tabulation: Helps to show which types of respondents answered in what ways.
 	
Uses two variables (bi-variate) in the analysis.
	Enables descriptions of respondents to one question on the basis of responses to another.
	
	To do this, take 2 kinds of information (the "helpful" scores and, for example, whether people say they are doing your class for "weight loss" or for "healthy heart."
	
	Add up how many people fit into each category for each answer.
	
	For example, how many of the 50 clients said "very helpful" and "weight loss"; how many said "very helpful and "healthy heart"; etc.?
		Helpfulness of Class by Respondent's Health Issue:
		
		       Weight Loss Healthy Heart
		very helpful 18 (36%) 2 (4%)
		
		somewhat helpful 10 (20%) 5 (10%)
		
		a little helpful 2 (4%) 3 (6%)
		
		not helpful 0 (0%) 10 (20%)
		         30 (60%) 20 (40%)
		
		60% of the respondents reported taking the class for weight loss purposes.
		Of those, 93% (28/30) stated the program was 'very helpful' or 'somewhat helpful'.
		Of the 40% of respondents who took the class for 'healthy heart' 65% (13/20) rated the program as 'a little helpful' or 'not helpful'.

ANALYSIS TYPE	DESCRIPTION	EXAMPLE
Tests of Statistical Significance: Helps to identify whether changes and relationships are attributable to chance alone, or whether the probability of being due to chance alone is significantly small, indicating the probability that a real relationship exists between these variables.	These tests are usually run by computer to determine the probability that there is a relationship between variables. The tests available depend upon the nature of the data. For most community applications, non-parametric statistical tests can be used. The appropriate test depends on the study design and level of measurement used. Statistical software (EpiInfo available for free from CDC at: http://www.cdc.gov/epiinfo/) are available from CDC and from commercial sources.	See Chapter 8, Resources.

The measures of central tendency described in Table 3 help you to describe the quantitative data you've collected for each data element. The methods for calculating these measures are not complex and most statistical software allow them to be easily generated, as demonstrated in both Tables 3 and 4.

As an example, if your program goal was to assist clients to lose weight over time, and you have been weighing clients monthly to determine their weight change, then you have several insights available for describing the success of this effort. You can demonstrate weight changes of individual clients over time to determine if the client lost weight, and also how much was lost over what period of time. You can also look for patterns of weight loss in relationship to their participation in the variety of program offerings, such as nutrition and diet counseling; structured exercise classes; a daily walking program; or, active participation in peer support networks.

You can also analyze your data for evidence of program-level outcomes by combining the observations of all of your clients in order to calculate standard measures of central tendency across all clients. This will provide your stakeholders with a much more helpful picture of the overall program benefits.

Table 4 illustrates how the measures of central tendency are determined for two sets of interval data (males versus females).
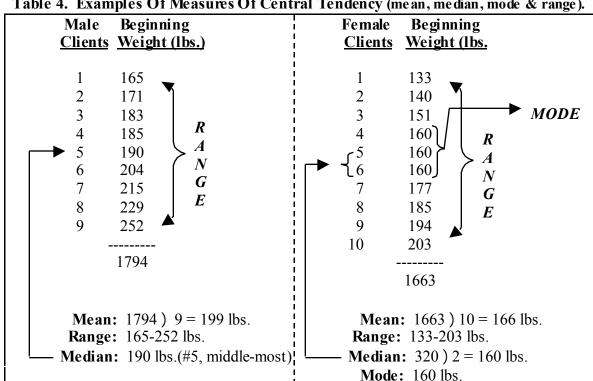
Table 4. Examples Of Measures Of Central Tendency (mean, median, mode & range).

Male Clients	Beginning Weight (lbs.)		Female Clients	Beginning Weight (lbs.
1	165		1	133
2	171		2	140
3	183		3	151
4	185	*R*	4	160
5	190	*A*	5	160
6	204	*N*	6	160
7	215	*G*	7	177
8	229	*E*	8	185
9	252		9	194
	---------		10	203
	1794			---------
				1663

MODE → (for females: 160)

Mean: 1794) 9 = 199 lbs.   **Mean:** 1663) 10 = 166 lbs.
Range: 165-252 lbs.   **Range:** 133-203 lbs.
Median: 190 lbs.(#5, middle-most)   **Median:** 320) 2 = 160 lbs.
                                                             Mode: 160 lbs.

By adding up the baseline weights of all clients (their weight at the time they entered the program), and then dividing this sum by the total number of clients, you will have the **mean** beginning weights (199 lbs. for males, versus 166lbs for females). The **range** of baseline client weights is 165-252 lbs. for males, versus 133-203 lbs. for females. The **median** (middle-most) weight for males is 190 lbs. versus 160 lbs. for females (calculated by adding the weights of the two middle-most clients [clients 5 and 6] and then dividing their combined weight by two). For females the **mode** (most common weight) is 160lbs. In this case, the mean and mode for females happened to be the same, while for males there was no mode determined as none of the males had the same weight.

Individual vs. Program-Level Data Analyses: Considerations Of Sampling And Bias

Why would you want to shift from individual to program-level analyses? Clearly, it takes more work. However, if you plan to do it you will have included a routine method for taking each individual observation (weighing a client, for example) and recording it onto a central log at the weight station along with the client's program identification number. This will allow you to periodically enter the log entries into a computerized database with data representing all clients.

If you do not have program-level database, you can only describe selected clients. In so doing, you run the risk of receiving criticisms from those stakeholders who expect an objective assessment of the program's overall "success". A selection of only those clients

who have responded well will introduce "bias" (unfairness) into your results because the analyses did not consider the full range of possible client outcomes.

As was discussed in Chapter 5, there are sampling methods that can be used to develop representative estimates of the clients' outcomes without having to consider every client. As long as the sample is selected randomly, bias can be avoided, or at least minimized. At the same time, the sample must be large enough to allow the results of the analyses to be considered "representative" of the whole population of clients. There are tables and software that can assist you in determining the minimum sample sizes needed depending on the level of precision that you want to achieve in your estimates of the populations' true characteristic of interest.

The decision to shift from individual to program-level data enhances the value of your results. When done properly, they provide a fair and easily understood description of the experience of all of the clients in your program. If the random sampling procedure has been followed, you will have the ability to state the methods used and to describe the changes that have occurred in the average client weight over time with a degree of accuracy that will be accepted as scientifically credible. Credible analytical results allow stakeholders to compare your program results with those of similar programs; and, they allow you to make comparisons over time to demonstrate whether or not the program results have been sustainable.

Aggregating Data

You will want to consider whether you should analyze all of your data together (aggregated) or whether it should first be separated into natural groupings (disaggregated) prior to each analysis you carry out.

In the case of body weight, it is clear that other client characteristics might influence the interpretation of the results. For example, what constitutes "normal" when determining if a person is overweight or not, will vary by the client's gender (male or female), age, and height. The taller a person is the more they can weigh before being considered overweight. Similarly, the older a person is the more they would be expected to weigh for a given height up to a point. Then in older ages, they may be expected to decrease in both height and weight for a variety of reasons. Finally, males of the same age and height of a female would be expected to weigh more due to their generally heavier "body build".

Such biological differences could complicate your ability to fairly describe your client population if it included men and women of varying ages. For this reason, it would be reasonable to consider separating, or disaggregating, your client data on the basis of these factors (gender, age, and height) prior to analyzing the data. There are pros and cons to disaggregation. The more groups you have, the more analyses you will have to perform. However, you should end up with more precise results that enable more accurate comparisons with the same groups — as trend monitoring over time (i.e. before and after

the program); or, comparisons with results on similar groups involved in other programs.

While disaggregating the data can increase the accuracy of the results, at the same time, the more groups you have, the larger your initial sample size will have to be to assure that you have enough clients in each group. If this is a problem, but the number of groups cannot be decreased to achieve larger numbers per group, alternative sampling designs (such as cluster sampling, and stratified sampling) should be considered.

To complete the example of client weight changes, one solution would be to group clients by gender and broad age group (adult [≥18 years] and adolescent [<18 years]), and to then characterize each group by height. This would allow descriptions of the following major groups: adult males, adult females, adolescent males, and adolescent females. Each group would be further characterized on the basis of height by providing the measures of central tendency for height [range, median height, and mean height).

Multivariate Analyses

More sophisticated analyses can be conducted if you have the ability to easily manipulate your data, such as by using a computer and statistical software. These make it easier to consider more than one variable at the same time. We've touched on this in the above example involving weight by using one or more variables (e.g. gender and age) to enable the disaggregation of the database into natural groups prior to analyses. You should do this anytime you expect that groups (e.g. women and men) may react differently to the issue under consideration, or if you think that the factors that influence client outcomes might vary on the basis of the client's group (e.g. gender, age category).

For example, women with small kids may have more difficulty participating in your program due to lack of childcare. On the other hand, men may not be attending the program at the expected levels for a very different set of reasons. If you have the ability to separate your clients into groups based upon their gender, then you can do the analysis separately for males and females and then compare the findings to see if your expectations were correct.

Other variables that you might consider when running such multivariate analyses include the client's race or ethnicity, tribe, whether the client is employed, is able to read and write, primary language, owns a car, has medical insurance, or has access to public transportation. Clearly, if you are targeting young adult women and don't provide child care service while the mother is participating in the program, then you would expect lower levels of participation. You would also expect those young adult women who are able to attend the program to be "different" from those with the kids who could not attend. A multivariate analysis would allow you to consider if this "logical" explanation is supportable by the data.

For example, if you were to do an analysis of only young adult women in your program and then described the proportionate distribution based on marital status and number of kids they have; and, if you developed the measures of central tendency for household

income, you could then compare the findings with the county-level census data for similarly aged women of similar race/ethnicity in that geographical area to see if your impressions are verifiable. If such a comparison reveals that the census profile for young adult women in the county indicates higher rates of marriage, more kids, and lower household income levels than your young adult female clients, then this suggests that those not attending are probably more likely to be married, have more kids, and have a lower income level than your clients. This would help you make the case to your stakeholders that perhaps you need to add a free on-site childcare service so you can attract and serve more of this high interest target population.

It is important to capture all the information for your evaluation analysis right from the beginning of your program – you cannot analyze data that you did not collect. The list of all the data elements that you will need for the analysis should be developed during your evaluation planning phase. While specific answers to questions or actual measurements are important, the demographic elements (like birth date, age, gender, marital status, race/ethnicity, tribe, primary language, education level, household income, employment status, etc.) are equally important.

As in every other phase of the evaluation, be sure to keep your stakeholders informed of the plans and progress of the data analyses and findings. There is almost always more analysis that you could do, but it is important to know when you have done enough. When you have answered the priority questions and looked at the most likely relationships in your data, you should seek feedback from your stakeholders on these preliminary findings and draft recommendations. Accept their critiques and discuss their concerns in order to assure that you are being fair with your data and that the stakeholders' interests have been considered and addressed, then move on.

Analyzing Qualitative Data

Analyzing qualitative data is a whole different process. It involves reading through the data and noting the things people talked about. From there, you develop categories that allow you to organize similar quotes together. For example, if the issue is identification of program weaknesses from the clients' perspectives, you would go through your data and "code" the text according to the categories you came up with. Finally, you would rearrange your data, by hand or by computer, to organize it by code so you can see what patterns emerge. Text may be listed under more than one code, and additional codes can be added as you go.

Sometimes, this process of pulling things apart can blur important information about the context in which your program operates or a client lives. A way to protect against this is to tell the whole story (called a "case study") of a few key clients so your audiences and the analysis team can remember how these results fit into the larger rhythm of the client's life and community.

If you want to be even more thorough in your coding and analysis, you can use a computer software program or can hire someone to help you with this. Either way,

because qualitative analysis involves personal interpretation more than quantitative analysis does, it's important that you:

- Are clear and up front about any inherent biases among the analysis team members so you can take steps to minimize their impacts.
- Maintain a chain of evidence so someone reading your evaluation report can understand how you reached your conclusions.
- Have others code and analyze the same data to find where and why differences in coding and analysis emerge -- any differences may warrant discussion in the results.
- Compare your quantitative findings with your qualitative results to see if similar trends are emerging – any differences may warrant discussion in the results report.
- Get feedback on your findings early: Choose some of your key stakeholders (including program clients) to "check" your findings. Does your interpretation of the data seem correct to them? Is it easy to understand? If not, you may need to go reconsider how you arrived at your conclusions.

In some cultures, the process of taking apart a story or comment provided by another is not appropriate. This may mean that the sections of text fields you code for categorizing will need to be large. Even in cultures where this is not such a direct issue, it is still important to think through how to will maintain the "voices" of those who have provided the data. This can be challenging when you also need to maintain anonymity of the sources. Table 5 describes the more common types of qualitative data analysis.

Table 5. Types Of Qualitative Data Analysis.

ANALYSIS TYPE	DESCRIPTION	EXAMPLE
Supporting Quotes	Based on what you find in your quantitative data, hunt through your qualitative data for supporting quotes.	Of those clients taking the class for weight loss purposes, 93% stated that the program was 'very helpful' or 'somewhat helpful.' A participant commented, 'You know, I never really thought about how much of my cooking is something like frying up greens with ham hocks. Everything goes good with frying! I've lost a few pounds just from cutting back on the cooking fat. That's what I liked about this class – learning how to cut the fat but still eat what I grew up with.'"
Analysis-by-Hand	Based on your evaluation questions and other ideas that come up as you read your qualitative data, develop codes for categories in which to group your quotes to help see patterns. Mark up your transcripts using the codes then cut up your text and	*{From a code for "increased control:"}* • "Many participants experienced an increased sense of control over their own and their family's health care from being in the program:" • "I had just about given up on going to the doctor's. Just no respect. But I learned how to hold my own there, how to get my questions answered, and it's been better." • "Yeah, I used to get all sweaty just thinking

	organize by code. (This can also be done by cutting and pasting on the computer.)	about having to talk to those guys at the hospital – especially when I was translating for one of my relatives."
Software-Assisted Analysis	Usually uses a qualitative analysis software package (such as NUD*IST) to have the computer search for items you might have missed in the hand analysis (above). For example, you can ask the computer to search and organize your text by key words or phrases related to your coded categories. The computer-based approach makes it easier to search not only for commonalities but also for differences found in your data.	*{From a search for "change":}* Many participants reported having a better understanding of how to make changes in their neighborhoods. "When we finally got everyone to come to a community meeting, we found out we all were worried about some of the same stuff. We set our minds to making some changes and, a year later, our drinking water is almost as clear as it is on the other side of town, and we won't stop there." "It's all about knowing what you want to be different and then figuring out how to change it. We had a lot of people dealing [drugs] around here. But we knew it wasn't enough just to hassle them. We had to help them connect with some good folk, some good schooling, some good jobs."

Avoid thinking through "solutions" for what you see in the data at this stage. That will come later.

As you analyze your data, you may find yourself saying: "If only we'd realized we needed to ask another question here or do some more data collection there." Make a note of these ideas as they will help you in planning for future evaluations.

When working with qualitative data, if you continue seeing the same themes and a general consistency in your analysis, then you know you are finished with the analyses and are ready to share your analysis results with your stakeholders to obtain their feedback regarding what you and they feel should be the key results themes.

Interpreting Your Data

Interpretation is the stage of the analysis where you convert your findings into understandable language for sharing with others. This is where you use the standards set up earlier to assure that the evaluation findings reflect your program and stakeholder interests. Whenever possible, you want your team to reach consensus, where all are in agreement, about the analysis findings. Though time consuming, this will help to produce the strongest interpretations possible.

You need to be able to describe to others the analytic methods used when sharing the results. For example, the story from Hawaii shows that one person's interpretation can be incorrect if that person doesn't understand the cultural context. It is critical that the evaluation report include sufficient explanations of contextual issues so those who read the reports are not misled. Having a Native Hawaiian to assist in interpreting the clients' responses would have helped the non-Hawaiian to understand this unique community.

Before attempting to interpret your results, take time to describe the context of your community, organization and program. Describe what your program does, who does it, how it is done, who the clients are, the resources available, and the conditions in which the program operates. Then you can begin to describe what the evaluation has revealed about the programs performance and whatever problems and/or constraints have been identified and how they may have hurt program implementation. It is essential that your community partners be actively involved so your program's story is told fairly and accurately.

You are now ready to begin interpreting your evaluation results. Again, it's important to keep in mind which "standards of success" you have selected for judging your results. Based on those standards, begin formulating conclusions from what the data tell you. Below are some questions that may help guide you in this process.
- How did your clients change in terms of knowledge, attitudes, and behaviors?
- How did organizations/systems change in terms of internal culture, staffing, protocols, policies, laws, etc.?
- Are these changes in line with your standards?
- Did some clients and/or systems change more than others? If so, why?
- If changes took place, were they because of your program? What else may have caused these changes?
- What contributed to your meeting your standards? How can you use this learning?
- What took away from your meeting your standards? How can you use these insights?
- How has your organization and/or community been enhanced, due to the program?
- What other important issues has your data revealed?

Consider grouping the relevant data analyses (quantitative and qualitative) under the appropriate question to help in organizing your thoughts. Remember, some findings will be considered "positive" and others "negative" under each question. Some may have had no change at all and remain neutral.

As you begin to draft answers to your evaluation questions, seek feedback on your interpretations from your stakeholders. It's important to help them distinguish between their feelings about the findings/interpretation ("I don't like hearing this!") and their questioning of its accuracy. The mainstream culture is very measurement-oriented and expects objective data assessments and interpretations, but you may have stakeholders who expect things to be measured "their way". Remember that <u>objectivity must be</u>

<u>maintained</u> if the credibility of your efforts is to be assured. By involving stakeholders at all stages of the evaluation process, they will appreciate the benefits to be gained from identifying operational challenges so they can be addressed and resolved.

In addition to addressing your evaluation questions, the following are other questions to ask as you proceed with interpreting your analyses:
- Do the results of your analyses make sense?
- Are there any surprises?
- What are some possible reasons for these surprises?
- Have you highlighted all of your successes? How about failures?
- Did your data collection possibly skew your data? If so, how?
- Did your data analysis possibly skew our data? If so, how?
- Which results do you feel most sure about? Least sure about?
- What additional data would you need to fully understand your program and its results?
- What did you not manage to capture in your data that you think is also happening? How could you better address this in the future?
- How might these findings help to improve your program? What would you want your program to do differently in the future?
- How might these findings help to improve future evaluations? What would you want to do differently in future evaluations?

It is important to realize when your interpretation has gone far enough. Your goal is to maximize the benefits of the evaluation, including demonstration of program successes, documentation of challenges, and development of recommendations for program improvements. Once this has been accomplished to your stakeholders' satisfaction, then the final step will be to finalize and distribute the evaluation report.

Keys To A Strong Interpretation Of Evaluation Findings

For a strong interpretation and understanding of your findings:

1. Don't assume that a few success stories will make a strong case for a successful program. Stakeholders will want to see that there are broad effects from your program and a sense that the cost of the program is in proportion to the number of clients served and the scope of their positive changes.

2. Don't assume that all positive changes you have found are the result of your program alone. There are so many things going on within communities that may also influence the health and well being, knowledge, attitudes and behaviors of your program's clients. These other influences can be both positive and negative. Since most analyses can't prove that your program single-handedly accounted for the positive results, it is important to talk about this in the evaluation report.

3. Don't assume that all your data collection methods, data collectors, and data sources are giving you equally strong or accurate information. There are many reasons for misinformation, so documented efforts to assure data quality (continuous quality

assurance monitoring; validation of data collected; validation of data entry into computer files) need to be addressed in the report along with a frank discussion of known data limitations.

4. Don't assume that your program's results in one community will be repeatable if the program is applied to another community. Remember, the strength of your program is the empowerment of the community in the planning and operation of your program. Each community needs a similar opportunity to join in planning the nature and implementation strategies to assure their own interests and values are also respected and built into the program, perhaps with adaptations. Each community is unique.

Recommendations

To get the most out of your evaluation efforts, you should include at the end of your evaluation report very specific recommendations that are solidly based in the evaluation results and designed for to help enhance program operations and outcomes. The recommendations should meet the following basic characteristics:
- Be timely;
- Be practical, including sensitive to program resource limitations and the community's culture/context and values;
- Be specific, to the point, and stated in a minimum of words;
- Use language that is easily understood by all; and,
- Provide the specific reason, based upon evaluation findings, for each recommendation.

Be aware that these are simply recommendations. It will be up to the program management team and stakeholders to receive the evaluation report and then determine what, if any, follow-up actions will be taken. For those operational constraints that directly limited the ability to answer specific evaluation questions, you will want to recommend corrective actions – this may involve retraining program staff to assure that they are adhering to program protocols so at the time of the next evaluation, you will have the documentation needed that may have been found to be incomplete or missing. Other corrective actions may require a commitment of new resources, such as hiring additional staff, purchase of additional equipment, or relocating clinics or offering them at more client-friendly times. Recommendations of this type require program management consideration and support before implementation.

However, regardless of the follow-up actions that may or may not be taken, use the last evaluation report as the basis for the next evaluation planning process. This way, you will have an opportunity to document the results of those actions acted upon. For those recommendations that were not acted upon, you will have another opportunity to consider the issue and inform program management of the current status – "resolved", "condition unchanged", or "condition has worsened and should be reconsidered".

Acknowledgments

Be sure that you include in the finished evaluation report an acknowledgement of those who have provided key support in the evaluation process. Keep in mind that this has been a participatory process that you want to be sustained and encouraged, so be sure to include your community partners and other stakeholders. This may be as simple as a few lines of text acknowledging the support provided; but, it would be helpful to actually include a listing of the members of the evaluation committee, including each member's affiliation. This not only provides a richly deserved pat-on-the-back for those who have worked so hard during the process; but, it also documents those directly involved in the evaluations in case there is an interest in revisiting some of the findings and recommendations.